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Decoupling Overview

DPSC DOCKET NO. 59

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Agenda

- Background and Overview
- DSM Program Summary
- Status of Decoupling Nationally
- Various Methods of Decoupling
- Key Issues
- Implementation
- Customer Impact

Background

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- This mechanism is commonly accepted and in-place mechanism for Natural Gas distribution utilities.
- As with Gas Distribution Utilities, it is particularly well suited for Distribution-only electric utilities, like Delmarva Power.
- Decoupling (or Bill Stabilization Adjustment - BSA) is a significant enabling component of PHI's recently filed "Blueprint for the Future" in Delaware, Maryland and the District of Columbia that encourages utilities to promote DSM and other conservation programs.
- Decoupling has been adopted in many states and proceedings are taking place across the country. We believe the benefits also apply to Delaware consumers.
- A variety of economic, engineering, and environmental factors have renewed utilities' interest in Demand Side Management (both energy efficiency and demand response) as a viable utility system resource but current rate structures tie revenue to sales levels and are contrary to DSM and conservation.

Overview - How Does it Work

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- In simplest terms, decoupling is a rate adjustment mechanism that “decouples” the recovery of the utility’s fixed-costs, including allowed rate of return, from variations in established sales levels.

- In contrast, in traditional regulation, rates are determined based on an estimation of the fixed cost of investment of providing service plus an allowed rate of return on investment divided by an estimated amount of sales over some period.

- Decoupling does not guarantee cost recovery, the cost basis is still established during a general rate case and the Company is still responsible for changes in costs.

- When a utility’s costs increase, it must still file a rate case and obtain Commission approval to change its approved level of revenue.

Overview - Benefits

- Saves customers money in two ways;
  - Aligns customer, State of Delaware and company interests on conservation, making company a full partner in demand side management (both energy efficiency, demand response and conservation) programs and more effectively encouraging all to work together to reduce customer's cost of energy.
  - More predictable revenue streams for the utility translate into lower risk and, therefore, into reduced costs to customers.
- Lessens price volatility for customers. On average, for the customer's delivery portion of the bill, the customer will pay a bit less when weather is more extreme and a bit more when weather is mild.
- Customers pay no more or no less than the commission-approved level of revenue.

Existing Demand Side Management Programs

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- **Energy For Tomorrow (Late 80s – DP&L)**
  - Residential AC/WH Cycling Program
  - 18 MW of Peak Demand Reductions
  - 40,765Participants

- **Energy Know How**
  - Educational Programs
  - My Account Web-based Energy Efficiency Tool

Proposed Demand Side Management Programs

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- Energy Efficiency
  - Energy Awareness Program
    - Provides ongoing customer education
  - Home Performance with Energy Star Program
    - Provides energy audits, energy efficiency loans, and specific energy efficiency rebates targeted at residential customers
  - HVAC
    - Provides residential high efficiency AC rebates as well as installer training
    - Provides commercial high efficiency AC Rebates
  - Lighting
    - Provides rebates for residential CFLs
  - Building Commissioning
    - Programs focused on improving new commercial building efficiency and lower operating costs
  - Prescriptive
    - Programs aimed at improving the efficiency of large customer lighting (T-5s, CFLs, LEDs) and HVAC Systems
  - Custom Incentive
    - Programs aimed at large customers, and providing site-specific energy efficiency measures

Proposed Demand Side Management Programs

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- **Demand Response**
  - Smart Thermostat
    - Provides customers an opportunity to get credit for allowing the utility to control HVAC systems during peak periods
  - New Pricing Options – Critical Peak Pricing, etc.
    - Allows customers to react to ongoing real time pricing signals
  - Internet Demand Response
    - Allows commercial and industrial customers to more easily use PJM load curtailment options
- **Measurement and Verification**
  - Blueprint Plan provides recommendations for ongoing measurement and verification of each program
  - It also recommends a formal impact evaluations after two years of program operation

Decoupling Methodologies

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Mechanism	Characteristics	Revenue Drivers Between Rate Cases	Pros	Cons
Traditional Regulation	Revenues set to earn authorized return. Volumetric rates recover a portion of fixed costs	Any changes in usage	Long history of acceptance, mechanism well understood.	Recovery of fixed costs through volumetric rate results in over/under recovery.
Weather Decoupling	Compares weather normalized current period revenues to test period revenues	Change in usage unrelated to weather	Widely adopted, straightforward to calculate and administer	Adjusts revenues for impacts of weather only
Revenue Decoupling	Decouples revenue from sales, re-couples to another metric, typically number of customers	Change in number of customers	Adjusts revenues for all impacts on a per customer basis, removes disincentive to promote energy conservation	Limited long term experience (except CA)
Return Stabilization	Resets revenues to stay within a band around an authorized return	Change in cost or revenues resulting in returns outside earnings band	Controls for changes in both costs and revenues	May reduce incentive to control costs
Fixed/Variable Rate Design	Recovers fixed costs through a fixed charge, variable costs through a volumetric charge	Any change in usage	Economically efficient, aligns revenues with underlying costs, sends economic price signal	May result in significant increases for low usage customers. Reduces customer incentive to conserve.

Status of Decoupling Nationally

- **Historical Emphasis on Energy Efficiency**
  - Late 80's – Early 90's driven by Integrated Resource Planning
  - Mid to Late 90's decline driven by restructuring
  - Current resurgence driven by
    - High and volatile supply side costs
    - Increased demand
    - Environmental concerns

- **Renewed Public Sector Interest**
  - NARUC
  - Regulatory Assistance Project
  - Federal Energy Policy Act
  - U.S. DOE "National Action Plan for Energy Efficiency"

- **Decoupling Viewed as Mechanism to Address the Problem of Lost Revenues and Current Disincentives Towards Promoting Energy Efficiency**
  - Also contributes to revenue and price stability

Status of Decoupling Nationally

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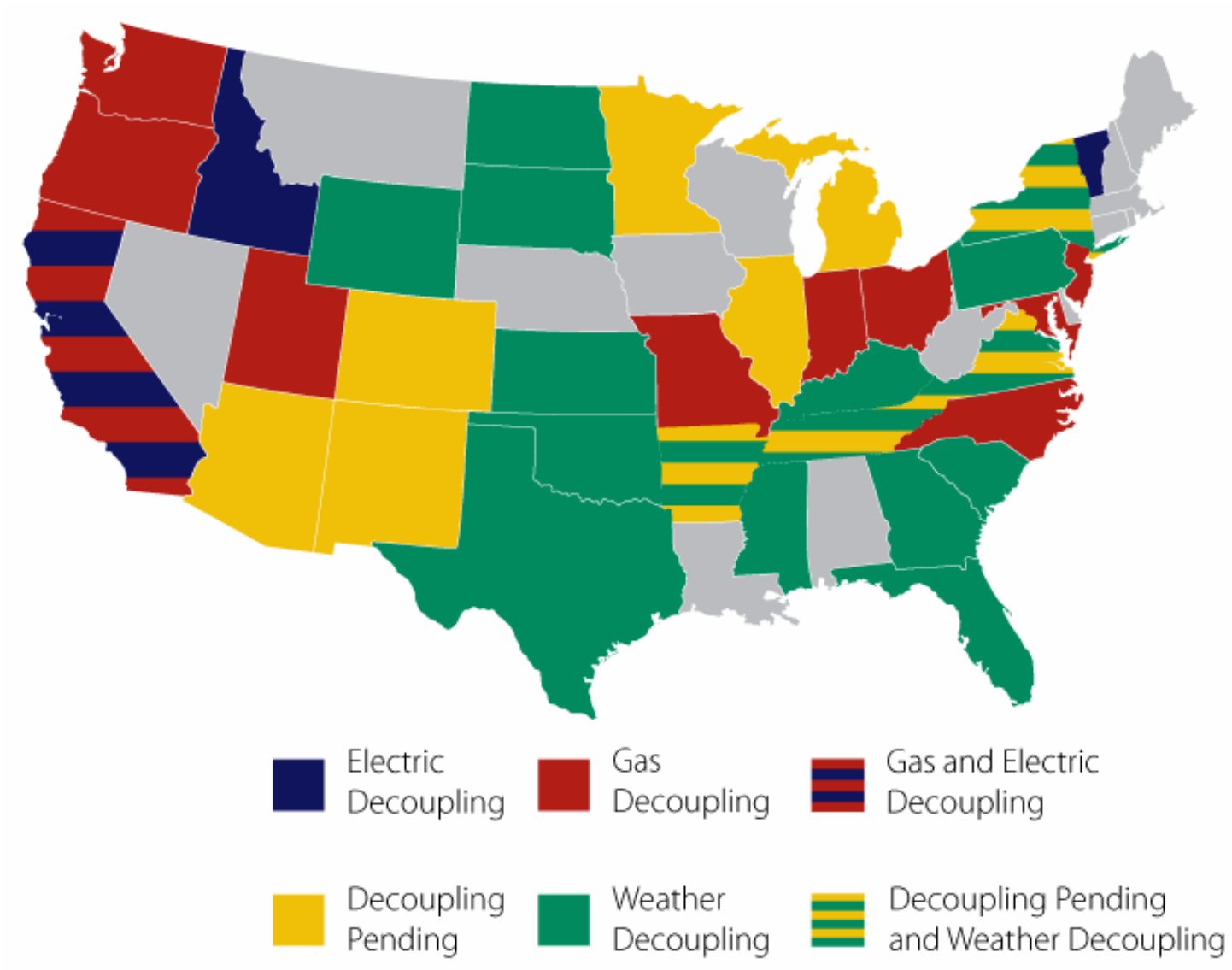

Key Issues

- **Methodology**
  - Per customer revenue decoupling is emerging as the standard
  - Application to all customer classes varies
  - Decoupling mechanisms typically considered during general rate cases – one size does not need to fit all

- **Linkage to Demand Side Management**
  - Decoupling removes a strong disincentive towards promoting energy efficiency
  - Decoupling also addresses the state's responsibility to provide utilities a reasonable opportunity to earn their authorized return.

- **Risk Impacts**
  - Reduces risk for utility failing to earn authorized return if usage falls
  - Also reduces risk for customers to pay and for utilities to earn in excess of authorized return when there is abnormal weather
  - Financial market reaction uncertain due to novelty of approach

- **Customer Impacts**
  - Could have some negative impact on customers
  - In times of recession average prices may be higher at a time when the ability to pay is reduced
  - Lower negative impact than a pure fixed/variable approach

Decoupling Implementation

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Issues Generally Raised:

a) Scope of events: weather only or all inclusive?
b) Scope of customer classes included.
c) Restriction on magnitude of price adjustments.
d) Timing of adjustments: monthly, quarterly, annual.
e) Rate of return implications.
f) Low income customer considerations.
g) Implementation approach?
h) Customer charge increase alternative?
i) Earnings cap or other mechanism to avoid potential gains.
j) Need for general rate case to set fixed costs.
k) Measurement and Verification of DSM savings.

Decoupling Implementation

Issues Generally Raised and Company's response/proposal for each issue:

a) Scope of events: weather only or all inclusive?
- *Adjust revenues for all impacts per customer*

b) Scope of customer classes included.
- *Initial proposal: all classes; Company willing to discuss*

c) Restriction on magnitude of price adjustments.
- *Company will "cap" adjustments*

d) Timing of adjustments: monthly, quarterly, annually
- *Company proposes quarterly adjustments*

e) Return on equity implications
- *ROE should reflect appropriate risk considerations*

f) Low income customer considerations
- *Develop and support energy efficiency programs for Low-income customers*

g) Pilot project implementation approach?
- *Company is not proposing a pilot*

Decoupling Implementation

Issues Generally Raised and Company's response/proposal for each issue:

h) Customer charge increase alternative?

- *Company believes decoupling is a better choice than to raise the customer charge*

i) Earnings cap or other mechanism to avoid potential gains?

- *Increased earnings are already subject to Delaware regulation section 310 rules*

j) Need for general rate case to set fixed costs

- *Current test years in recent rate cases appropriate*

k) Measurement and Verification of DSM savings

- *Ongoing measurement and verification provided through Blueprint Plan*

We Feel the Delmarva Power Proposal Provides Customer Benefits

- Saves customers money in two ways;
  - Aligns customer, State of Delaware and company interests on conservation, making company a full partner in demand side management (both energy efficiency, demand response and conservation) programs and more effectively encouraging all to work together to reduce customer's cost of energy.
  - More predictable revenue streams for the utility translate into lower risk and, therefore, into reduced costs to customers.
- Lessens price volatility for customers. On average, for the customer's delivery portion of the bill, the customer will pay a bit less when weather is more extreme and a bit more when weather is mild.
- Customers pay no more or no less than the commission-approved level of revenue.

BSA Impact on Customer Electric Bills

Small BSA adjustments will be offset by 10-fold potential in savings on DSM programs

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ANNUAL AVERAGE CUSTOMER IMPACT OF ELECTRIC BSA

	Rate Class					
	R	RH	SGS	MGS	LGS	GS-P
Test Year Sales (kWh)	1,862,697,655	1,090,748,375	160,569,128	1,114,949,432	529,826,118	2,576,570,523
Average Monthly Use per Customer	837	1,311	761	8,130	128,911	437,151
Average Monthly Revenue per Customer	$ 26.62	$ 31.05	$ 35.02	$ 144.35	$ 1,112.61	$ 2,690.35
Historic Back Cast						
2004						
Sales (kWh)	1,848,387,115	1,091,239,357	161,627,855	1,105,675,582	532,544,223	2,553,392,224
Sales Variance from Test Year (kWh)	(14,310,540)	490,982	1,058,727	(9,273,850)	2,718,105	(23,178,299)
Average Monthly Use per Customer	833	1,319	767	8,135	130,782	434,324
Avg. Use Variance from Test Year (kWh)	(4)	8	6	4	1,871	(2,827)
Average Monthly Revenue per Customer	$ 26.53	$ 31.18	$ 35.23	$ 143.86	$ 1,116.93	$ 2,669.69
Revenue per Customer Variance	$ (0.09)	$ 0.14	$ 0.21	$ (0.49)	$ 4.32	$ (20.66)
BSA ($ per Year)	$ 1.23	$ (2.62)	$ (2.90)	$ 7.10	$ (67.23)	$ 274.51
BSA % of Total Bill	0.085%	-0.132%	-0.265%	0.065%	-0.046%	0.050%
2005						
Sales	1,979,894,775	1,138,640,951	160,026,811	1,148,442,603	542,985,656	2,681,231,688
Sales Variance from Test Year (kWh)	117,197,120	47,892,576	(542,317)	33,493,171	13,159,538	104,661,165
Average Monthly Use per Customer	880	1,352	748	8,285	128,670	451,766
Avg. Use Variance from Test Year (kWh)	43	41	(14)	155	(242)	14,615
Average Monthly Revenue per Customer	$ 27.60	$ 31.79	$ 34.55	$ 145.96	$ 1,207.56	$ 2,742.65
Revenue per Customer Variance	$ 0.99	$ 0.74	$ (0.48)	$ 1.61	$ 94.94	$ 52.30
BSA ($ per Year)	$ (12.17)	$ (9.98)	$ 5.93	$ (17.14)	$ (356.06)	$ (675.95)
BSA % of Total Bill	-0.807%	-0.490%	0.555%	-0.153%	-0.236%	-0.120%
2006						
Sales	1,876,137,099	1,018,298,918	140,891,857	1,137,347,955	557,722,333	2,678,971,977
Sales Variance from Test Year (kWh)	13,439,444	(72,449,457)	(19,677,271)	22,398,523	27,896,215	102,401,454
Average Monthly Use per Customer	822	1,197	658	7,796	126,870	446,124
Avg. Use Variance from Test Year (kWh)	(15)	(114)	(103)	(335)	(2,041)	8,972
Average Monthly Revenue per Customer	$ 26.27	$ 28.98	$ 31.41	$ 140.33	$ 1,204.03	$ 2,776.55
Revenue per Customer Variance	$ (0.35)	$ (2.06)	$ (3.61)	$ (4.02)	$ 91.42	$ 86.20
BSA ($ per Year)	$ 4.55	$ 26.47	$ 36.48	$ 53.34	$ (390.89)	$ (1,122.68)
BSA % of Total Bill	0.317%	1.399%	3.730%	0.500%	-0.261%	-0.199%

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Impact of BSA on Customer Gas Bills

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ANNUAL AVERAGE CUSTOMER IMPACT OF GAS BSA

	Rate Class			
	RG-R	RG-RSH	GG	MVG
Test Year WN Sales (CCF)	2,758,023	78,818,731	43,755,073	11,258,809
Historic Back Cast				
2004				
Sales (CCF)	2,720,555	74,110,880	42,238,198	10,867,255
Sales Variance from Test Year (CCF)	(37,468)	(4,707,851)	(1,516,875)	(391,554)
BSA ($ per Year)	$ 1.43	$ 5.72	$ 66.97	$ 325.42
BSA % of Total Bill	0.34%	0.50%	1.00%	0.02%
2005				
Sales	2,752,190	81,365,470	45,303,275	11,793,745
Sales Variance from Test Year (CCF)	(5,833)	2,546,739	1,548,202	534,936
BSA ($ per Year)	$ 0.57	$ (27.12)	$ (135.27)	$ (2,050.47)
BSA % of Total Bill	0.13%	-2.22%	-1.94%	-0.11%
2006				
Sales	2,598,551	68,427,530	39,295,509	10,198,041
Sales Variance from Test Year (CCF)	(159,472)	(10,391,201)	(4,459,564)	(1,060,768)
BSA ($ per Year)	$3.49	$32.90	$ 90.00	$ 1,144.90
BSA % of Total Bill	0.84%	3.03%	1.44%	0.07%

Questions?